

AMENDMENTS TO THE CLAIMS

Please amend the claims as indicated by the following claim listing.

**Claim Listing:**

1. (currently amended): A ~~computer implemented method~~ system comprising:

means for defining a set of reduced regular expressions for particular patterns in strings, wherein the set of reduced regular expressions has less expressiveness than a set of regular expressions; and

means for learning, from a training set, a knowledge base that uses the reduced regular expressions to resolve ambiguity based upon the strings in which the ambiguity occurs, wherein the learning means is configured to perform ~~includes~~ transformation sequence learning to create a set of rules that use the reduced regular expressions to resolve ambiguity based upon the strings in which the ambiguity occurs.

2. (currently amended): A ~~computer implemented method~~ system as recited in claim 1, wherein the set of reduced regular expressions are defined over a finite alphabet  $\Sigma$ , wherein the alphabet is a union of multiple sets of distinct classes.

3. (currently amended): A ~~computer implemented method~~ system as recited in claim 1, wherein the training set comprises a labeled corpus.

1 4. (currently amended). A ~~computer-implemented method~~ system as  
2 recited in claim 1, wherein the set of reduced regular expressions specify types of  
3 patterns that are allowed to be explored when learning from the training set.

4  
5 5. (currently amended): A ~~computer-implemented method~~ system as  
6 recited in claim 1, wherein the learning means includes means for applying a set of  
7 very reduced regular expressions that are a proper subset of the reduced regular  
8 expressions.

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10 6. (currently amended): A ~~computer-implemented method~~ system  
11 ~~having computer-executable instructions that, when executed on a processor,~~  
12 ~~perform a method~~ comprising:

13 means for defining a set of reduced regular expressions for particular  
14 patterns in strings, wherein the set of reduced regular expressions has less  
15 expressiveness than a set of regular expressions; and

16 means for learning, from a training set, a knowledge base that uses the  
17 reduced regular expressions to resolve ambiguity based upon the strings in which  
18 the ambiguity occurs, wherein the set of reduced regular expressions specify types  
19 of patterns that are allowed to be explored when learning from the training set.

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21 7. (currently amended): A ~~computer-readable medium~~ system as  
22 recited in claim 6, wherein the set of reduced regular expressions are defined over  
23 a finite alphabet  $\Sigma$ , wherein the alphabet is a union of multiple sets of distinct  
24 classes.

1 8. (currently amended): A ~~computer-implemented method~~ system as  
2 recited in claim 6, wherein the training set comprises a labeled corpus.

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4 9. (currently amended): A ~~computer-implemented method~~ system as  
5 recited in claim 6, wherein the learning means comprises means for transformation  
6 sequence learning to create a set of rules that use the reduced regular expressions  
7 to resolve ambiguity based upon the strings in which the ambiguity occurs.

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9 10. (currently amended): A ~~computer-implemented method~~ system as  
10 recited in claim 6, wherein the learning means includes means for applying a set of  
11 very reduced regular expressions that are a proper subset of the reduced regular  
12 expressions.

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14 11. (currently amended): A ~~computer-implemented method~~ system  
15 comprising:

16 means for receiving a string with an ambiguity site;

17 means for applying reduced regular expressions to describe a pattern in the  
18 string, wherein the reduced regular expressions:

19 are included in a knowledge base that is learned from a training set;

20 have less expressiveness than regular expressions; and

21 specify types of patterns that are allowed to be explored when the  
22 knowledge base is learned; and

23 selecting one of the reduced regular expressions to resolve the ambiguity  
24 site.

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1 12. (currently amended): A ~~computer-implemented method~~ system as  
2 recited in claim 11, wherein the applying means is configured to includes applying  
3 apply a set of very reduced regular expressions that are a proper subset of the  
4 reduced regular expressions.

5  
6 13. (currently amended): A ~~computer-implemented method~~ system  
7 comprising means for:

8 receiving a string with an ambiguity site;

9 applying reduced regular expressions to describe a pattern in the string,

10 wherein;

11 the applying includes applying a set of very reduced regular  
12 expressions that are a proper subset of the reduced regular expressions; and

13 the reduced regular expressions have less expressiveness than  
14 regular expressions; and

15 selecting one of the reduced regular expressions to resolve the ambiguity  
16 site.

17  
18 14. (currently amended): A ~~computer-readable medium having~~  
19 ~~computer-executable instructions that, when executed on a processor, perform a~~  
20 method system comprising:

21 means for receiving a string with an ambiguity site;

22 means for applying reduced regular expressions to describe a pattern in the  
23 string, wherein the reduced regular expressions:

24 ~~the reduced regular expressions~~ are included in a knowledge base  
25 that is learned from a training set;

1 have less expressiveness than regular expressions; and  
2 ~~the reduced regular expressions~~ specify types of patterns that are  
3 allowed to be explored when the knowledge base is learned; and  
4 means for selecting one of the reduced regular expressions to resolve the  
5 ambiguity site.

6  
7 15. (currently amended): A ~~computer readable medium~~ system as  
8 recited in claim 14, wherein the applying means is configured to apply ~~includes~~  
9 ~~applying~~ a set of very reduced regular expressions that are a proper subset of the  
10 reduced regular expressions.

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12 16. (currently amended): A ~~computer readable medium~~ having  
13 ~~computer-executable instructions that, when executed, direct a computer to~~ system  
14 comprising:

15 means for reading ~~read~~ a training set;  
16 means for constructing ~~construct~~ a graph having a root node that contains a  
17 primary position set of the training set and multiple paths from the root node to  
18 secondary nodes that represents a reduced regular expression that has less  
19 expressiveness than a regular expression, the secondary node containing a  
20 secondary position set to which the reduced regular expression maps;  
21 means for scoring ~~score~~ the secondary nodes to identify a particular  
22 secondary node; and  
23 means for identifying ~~identify~~ the reduced regular expression that maps the  
24 path from the root node to the particular secondary node.  
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1 17. (currently amended): A training system comprising:

2 a memory to store a training set;

3 a processing unit; and

4 ~~means a disambiguation trainer~~, executable on the processing unit, ~~to~~ for:

5 defining ~~define~~ a set of reduced regular expressions for particular  
6 patterns in strings of the training set, wherein the set of reduced regular  
7 expressions has less expressiveness than a set of regular expressions; and

8 learning ~~learn~~ a knowledge base that uses the reduced regular  
9 expressions to describe the strings wherein the reduced regular expressions  
10 specify types of patterns that are allowed to be explored when the  
11 knowledge base is learned from the training set.

12  
13 18. (original): A training system as recited in claim 17, wherein the  
14 training set comprises a labeled corpus.

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16 19. (original): A training system as recited in claim 17, wherein the  
17 disambiguator trainer employs transformation sequence learning to create a set of  
18 rules that use the reduced regular expressions to describe the strings.

19  
20 20. (currently amended): A system comprising:  
21 a memory to store a knowledge base that uses reduced regular expressions  
22 to resolve ambiguity based upon strings in which the ambiguity occurs, wherein:  
23 the knowledge base is learned from a training set using the reduced  
24 regular expressions[[,]];   
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1 the reduced regular expressions specify types of patterns that are  
2 allowed to be explored when the knowledge base is learned; and  
3 the reduced regular expressions have less expressiveness than  
4 regular expressions;  
5 a processing unit; and  
6 means a disambiguator, executable on the processing unit, ~~to~~ for:  
7 receiving receive a string with an ambiguity site; and  
8 applying apply a reduced regular expression from the knowledge  
9 base that describes a pattern in the string to resolve the ambiguity site.  
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